

Claims 1 - 22 (canceled)

23. (previously presented) A method for fabricating multilevel metal interconnections having low dielectric constant insulators on a substrate comprising the steps of:

providing first metal lines, formed over said substrate;

coating a layer of low dielectric constant insulating material on and in between said metal lines;

curing the low dielectric constant material at 400°C;

depositing a thin layer of silicon nitride, an adhesion promoter and stabilizing material on the low dielectric constant material;

depositing a silicon oxide cap layer on the adhesion promoter and over the low dielectric constant material; and

planarizing the silicon oxide cap layer by chemical mechanical polish (CMP).

24. (previously presented) The method of claim 23, wherein said low dielectric constant material is spun on dielectric, deposited to a thickness of about 4,000 to 12,000 Angstroms, with curing conditions at 400°C for 1 hr., in a nitrogen ambient gas flow from about 1 to 30 SLM, oxygen less than 10 ppm.

25. (previously presented) The method of claim 23, wherein said layer of adhesion promoter and stabilizer is a non-oxide compound.

26. (previously presented) The method of claim 25, wherein said layer of adhesion promoter and stabilizer is silicon nitride, deposited by plasma enhanced chemical vapor deposition to a thickness of between about 200 and 500 Angstroms.

27. (previously presented) The method of claim 23, wherein said silicon oxide cap layer is deposited by plasma enhanced chemical vapor deposition, to a thickness of between about 4,000 to 16,000 Angstroms.

Claims 28 - 41 (canceled)

REMARKS